

1/15

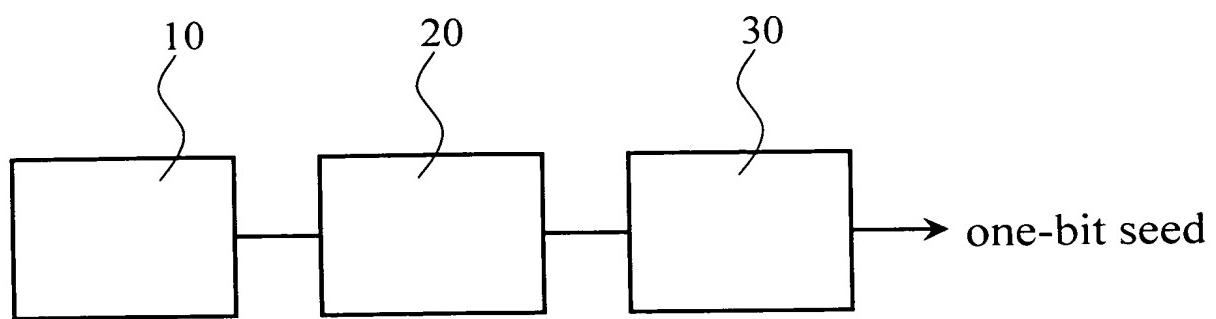
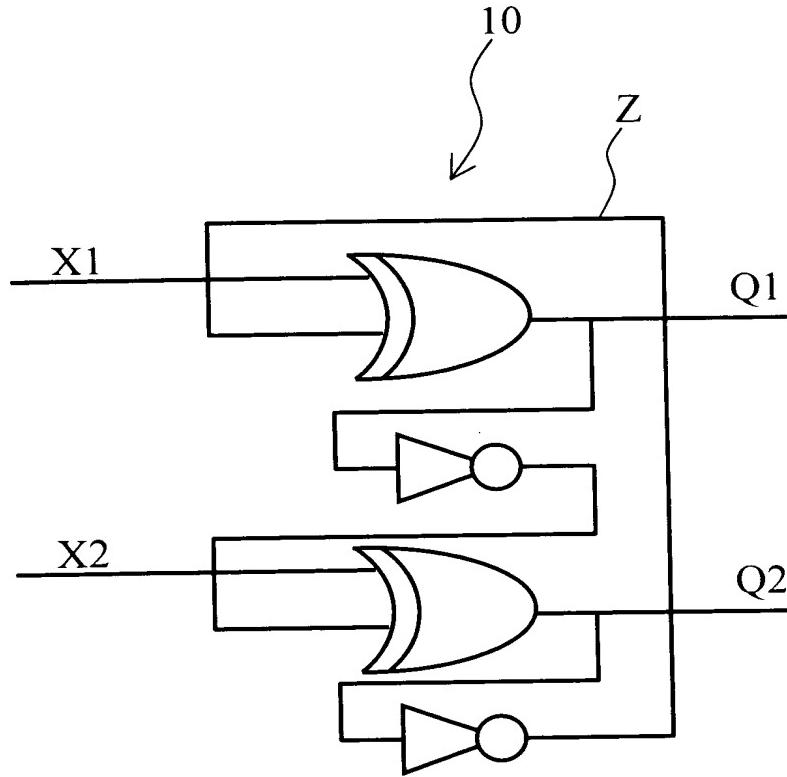


FIG.1

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If $X_1 = X_2$,
an operation equivalent to a flip-flop having even
inverters

In the case of $Z=1$

- when $X_1 = X_2 = 1, Q_1 = 0, Q_2 = 0$
- when $X_1 = X_2 = 0, Q_1 = 1, Q_2 = 0$

In the case of $Z=0$

- when $X_1 = X_2 = 1, Q_1 = 1, Q_2 = 1$
- when $X_1 = X_2 = 0, Q_1 = 1, Q_2 = 0$

If $X_1 \neq X_2$,
an operation as a ring oscillator

FIG.2

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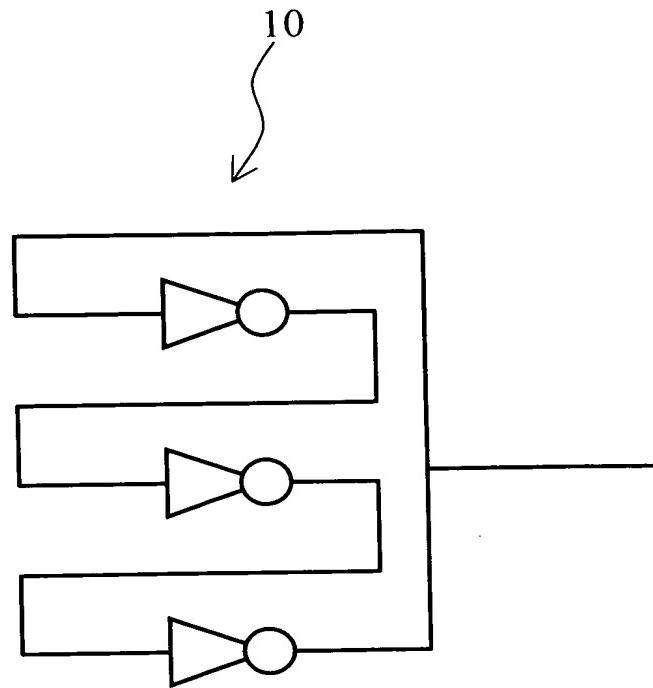


FIG.3

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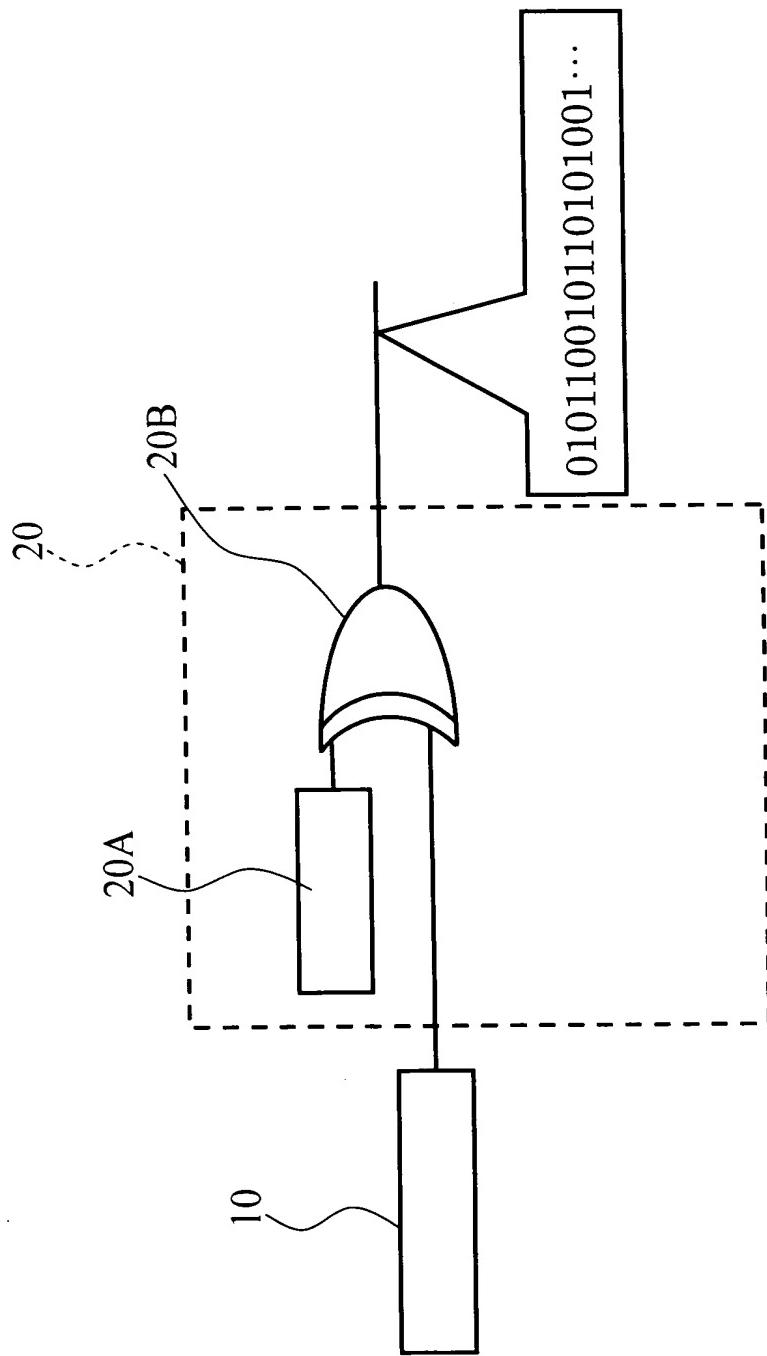


FIG. 4

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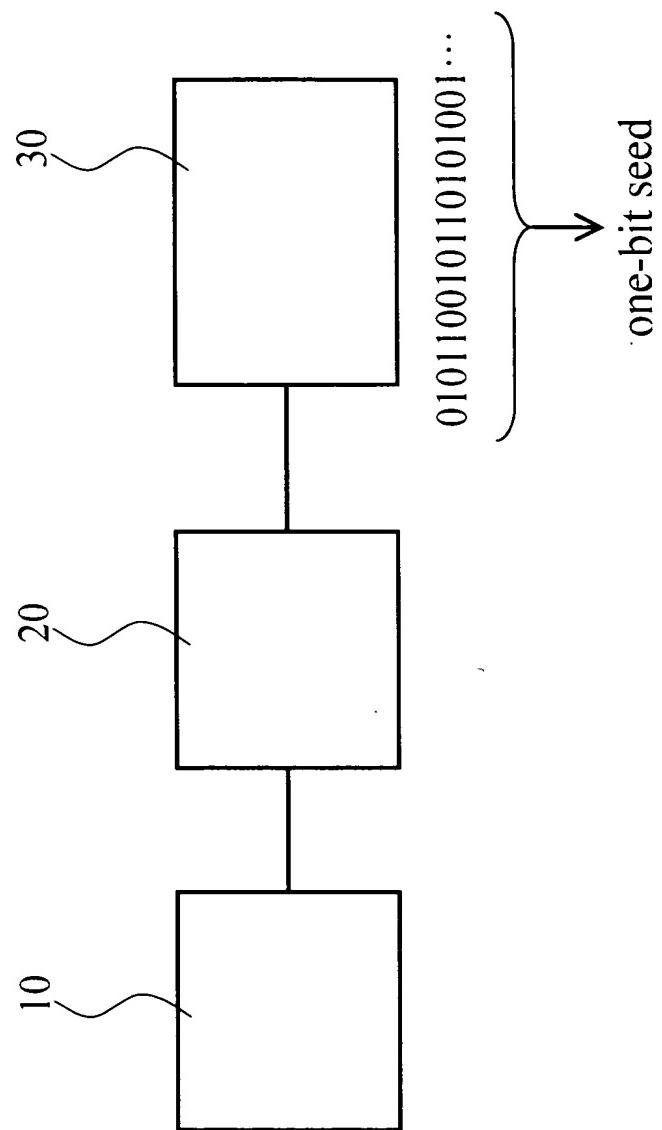


FIG. 5

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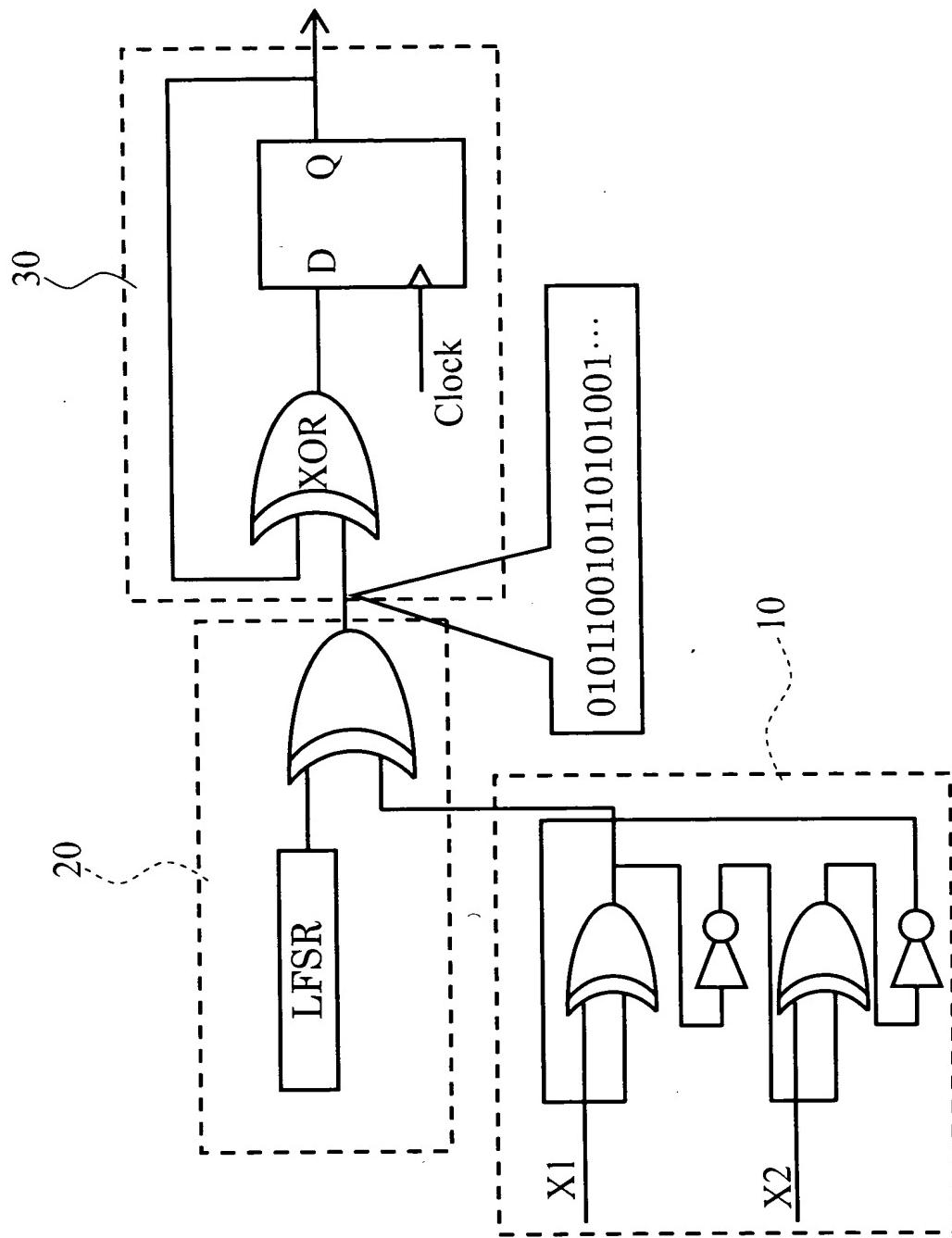


FIG. 6

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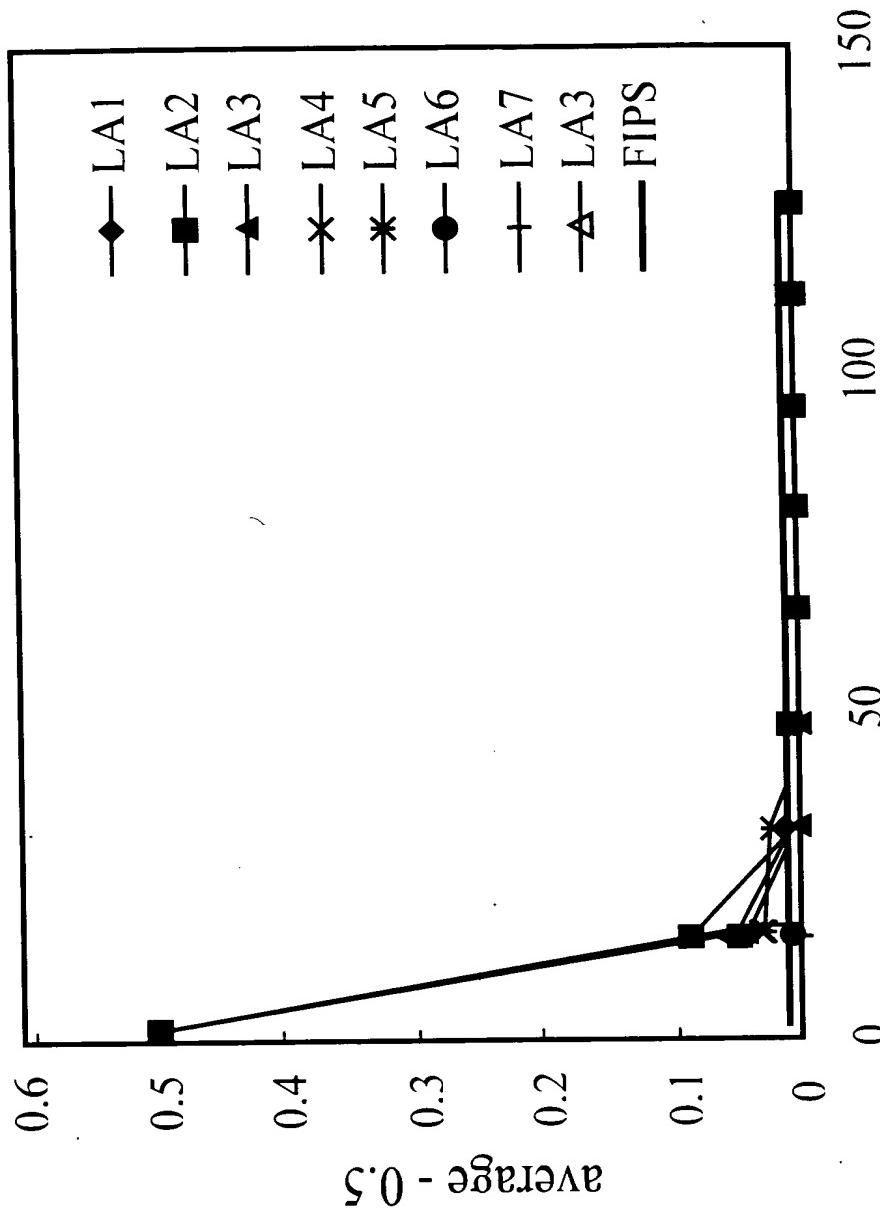


FIG. 7
COUNT

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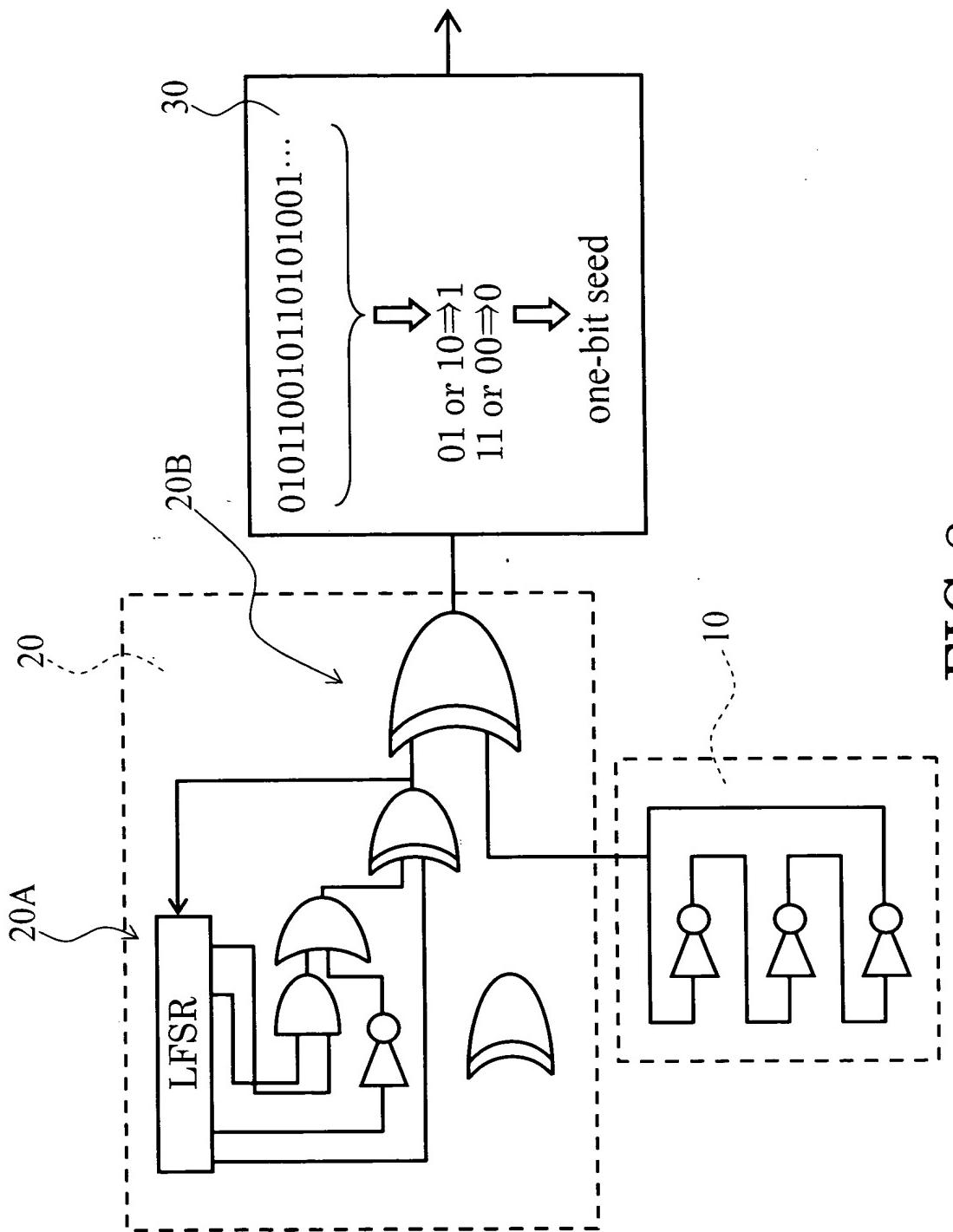


FIG.8

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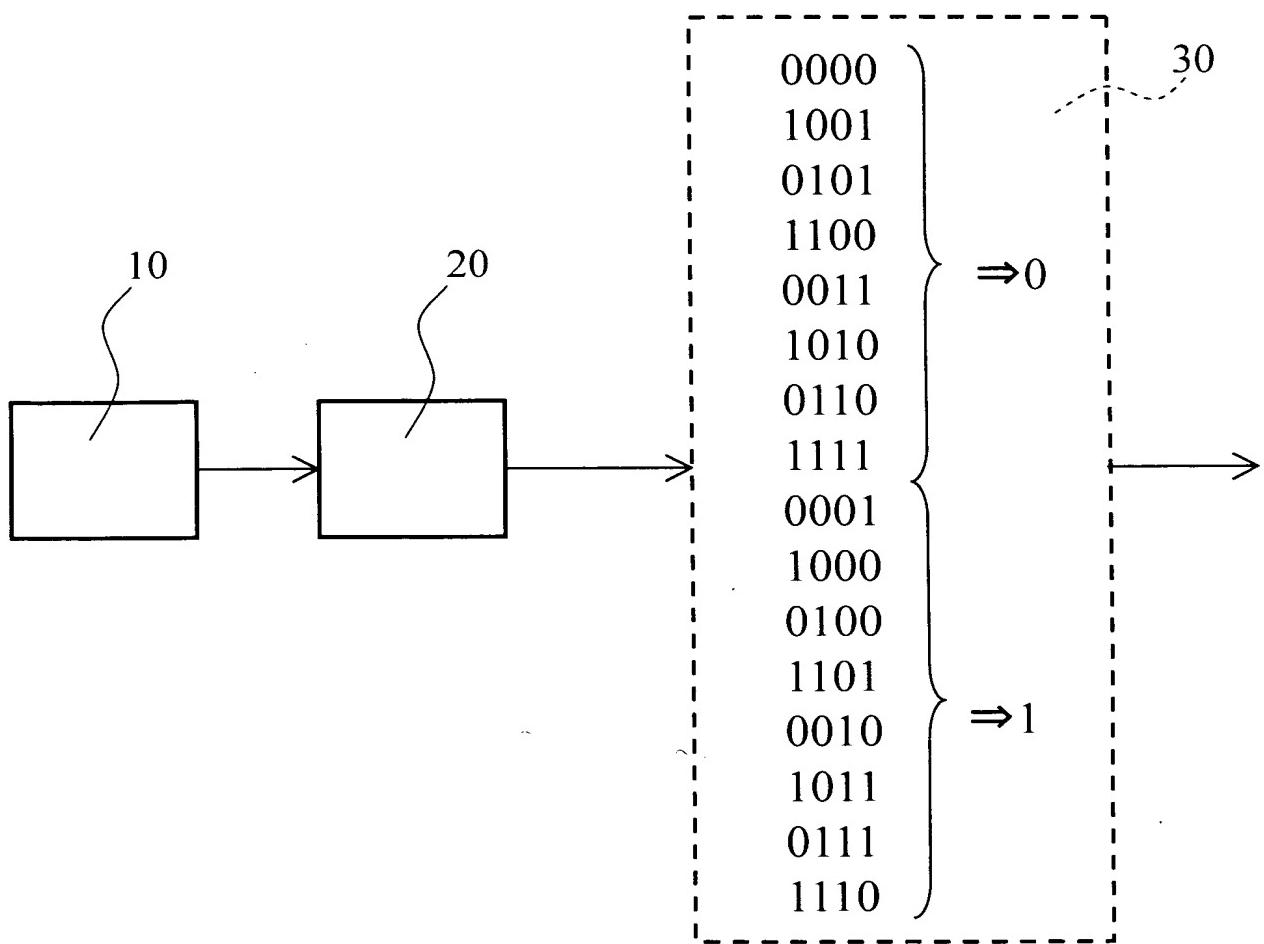


FIG.9

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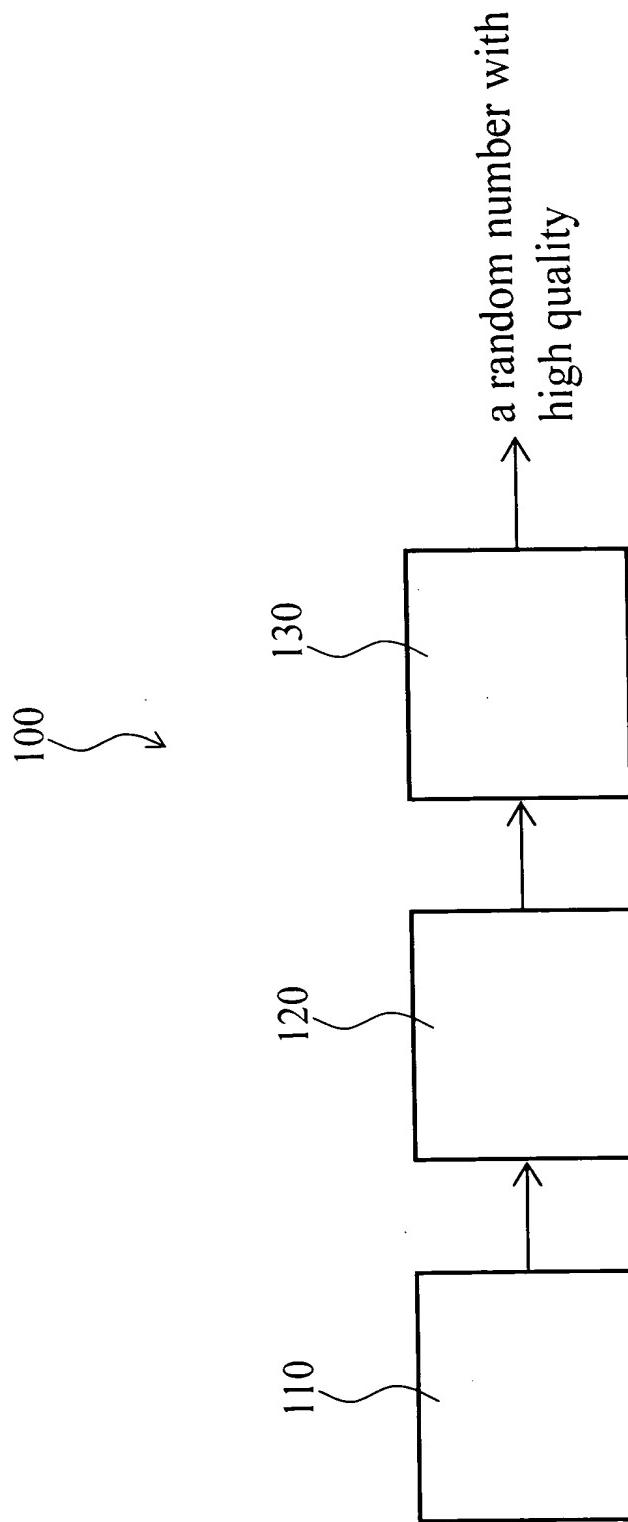


FIG.10

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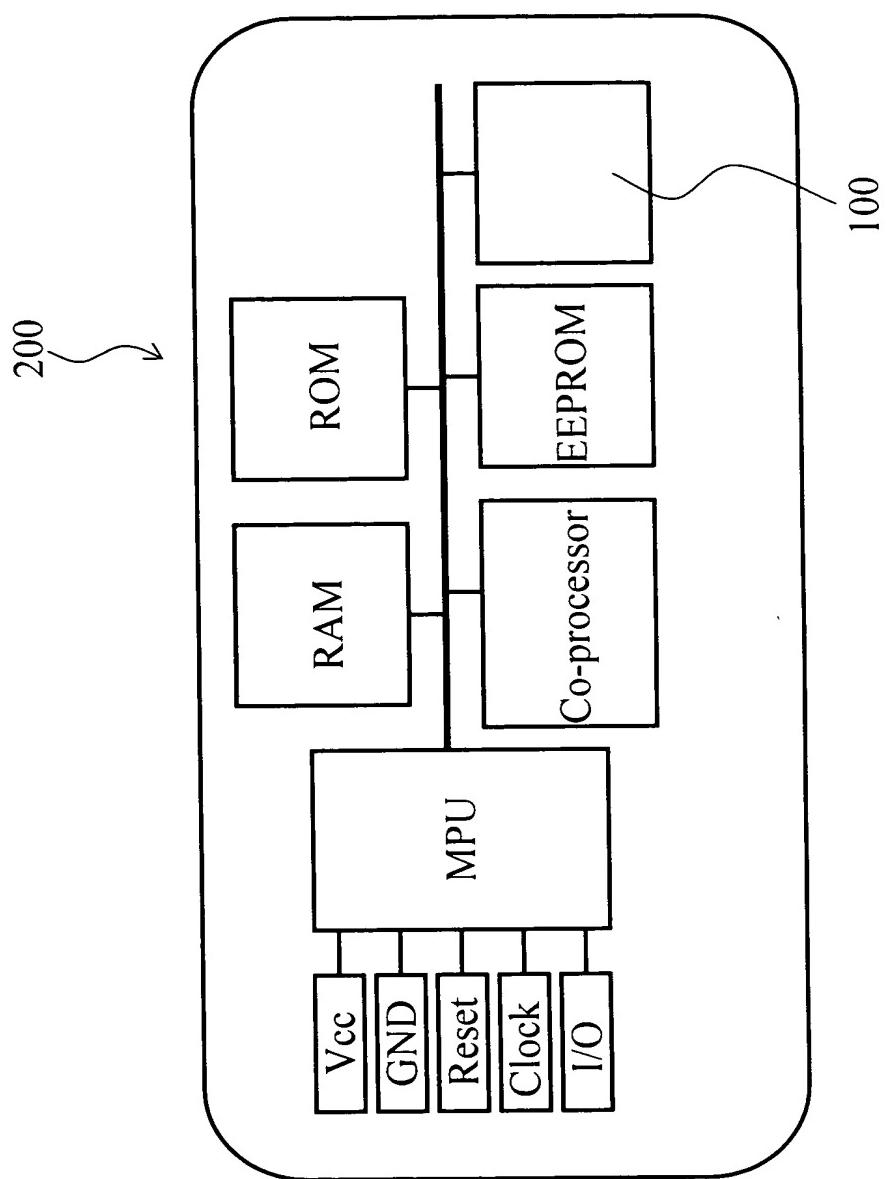


FIG.11

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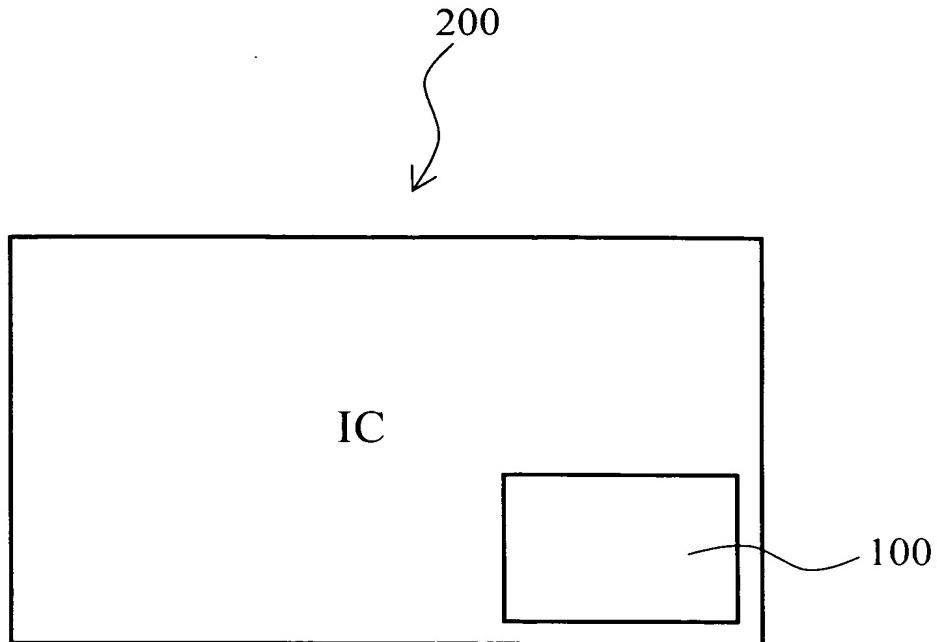


FIG.12

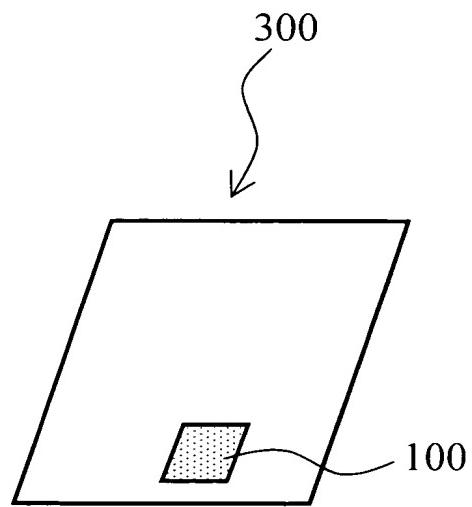


FIG.13

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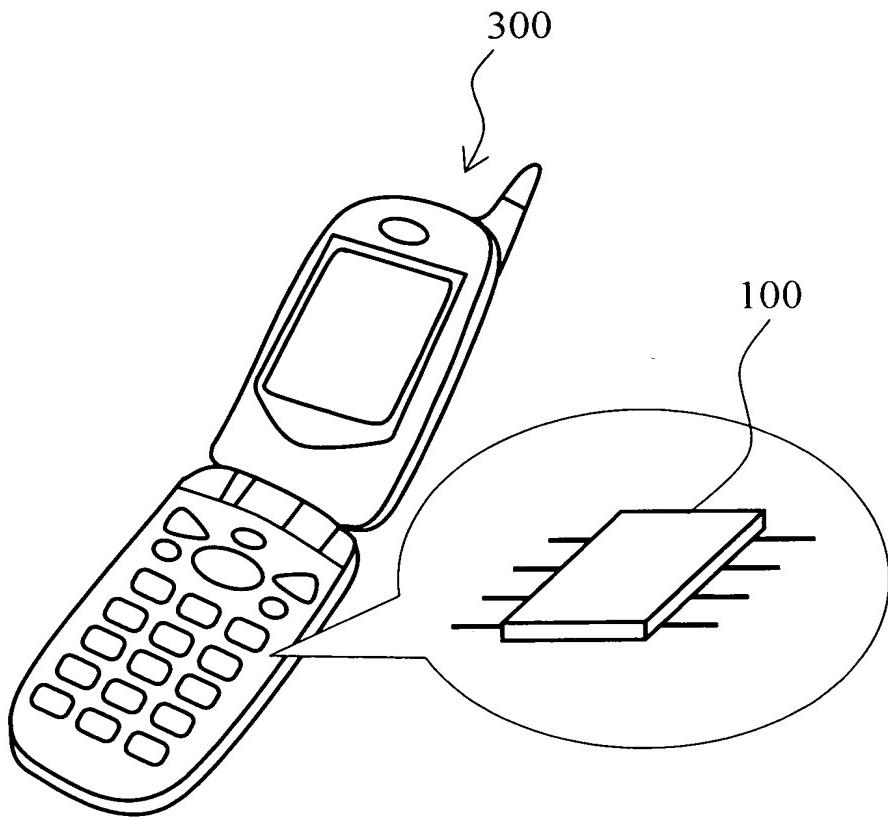


FIG.14

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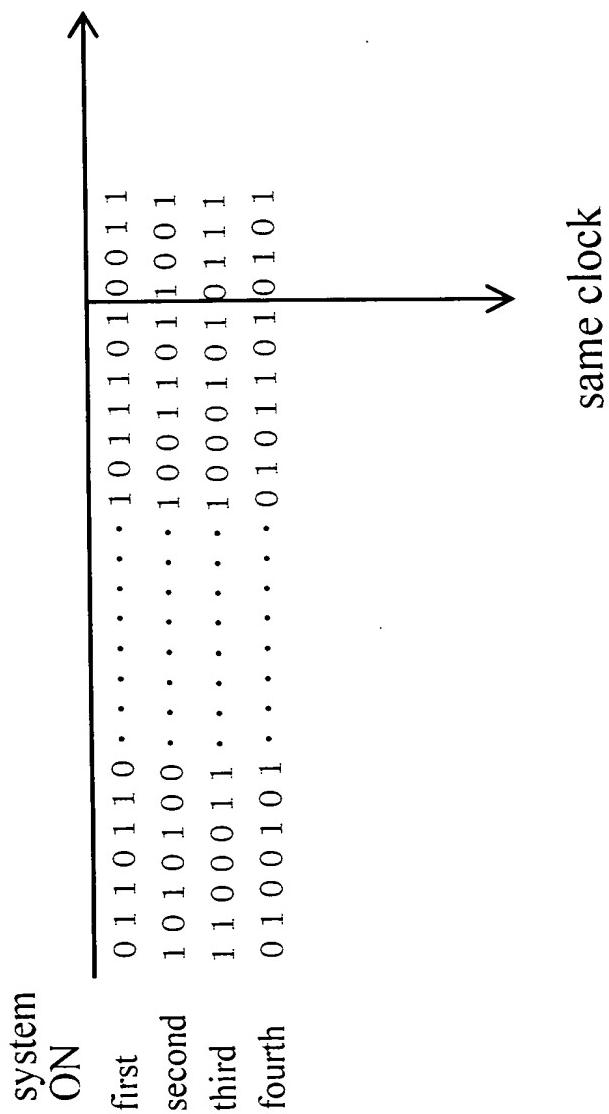


FIG.15

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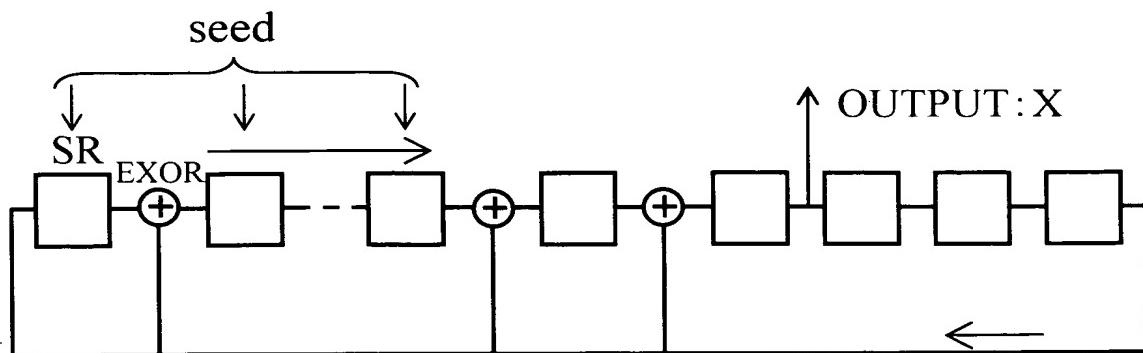


FIG.16A

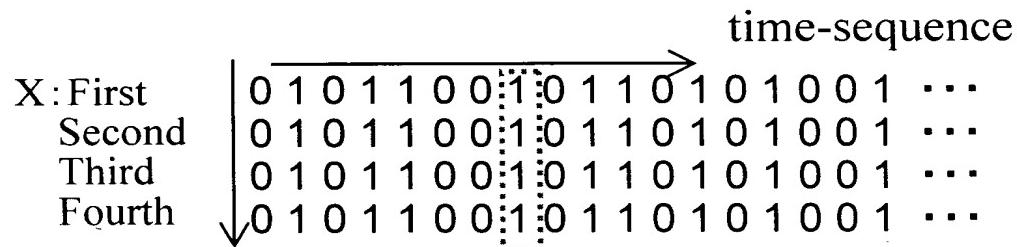


FIG.16B

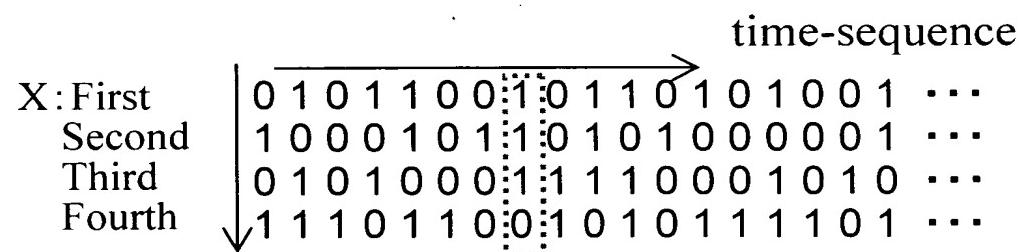


FIG.16C